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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,149	01/29/2002	Toshihiro Takagi	3064IT/50895	4052

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EXAMINER
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SHEPARD, JUSTIN E

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/058,149		TAKAGI ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Justin E. Shepard		2623	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                                              |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/25/02</u> . | 6) <input type="checkbox"/> Other: ____.                                                |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama in view of Eyer.

Referring to claim 1, Sugiyama discloses a channel selection device used in a digital/analog broadcasting receiver comprising: a receiver for receiving an encoded digital/analog broadcasting signal originated from a broadcasting station (figure 4, part 404; column 1, lines 48-52); a digital/analog decoder for decoding the digital/analog broadcasting signal received from the receiver (figure 4, parts 413 and 414) and then outputting the signal to a display (figure 4, part 418); a control unit for controlling the sections of the receiver such that, upon reception of the channel selection instruction from the input device, the receiver receives the broadcasting signal of a selected channel (figure 12); and an input device for inputting a user's instruction for channel selection to the control unit (figure 6; figure 4, parts 412 and 422); wherein the receiver receives the digital broadcast and an analog broadcast which are originated through different physical channels (figure 1), the digital broadcasting signal having, in one main channel, one or a plurality of sub-channels for originating contents there through (figure 1, channel 39) and also having a VCT (Virtual Channel Table) containing virtual channel

information (column 2, lines 25-26) providing the sub-channels with a correlation with an analog broadcasting physical channel (figure 1).

Sugiyama does not disclose a device that includes a memory for storing, as a channel map, channel information contained in the broadcasting signal decoded by the digital decoder; and the control unit, when trying to select a channel based on a channel upward/downward changing instruction sent from the input device, appropriately uses any one of the following four techniques of:

a first technique, by which when there no channel information in the memory, the frequency is shifted to search for a desired physical channel to thereby select a channel contained in a detected physical channel and also store information of the channel in the channel map.

Eyer discloses in an analogous art a device that includes a memory for storing, as a channel map, channel information contained in the broadcasting signal decoded by the digital decoder (figure 2, parts 40 and 48); and the control unit, when trying to select a channel based on a channel upward/downward changing instruction sent from the input device (column 7, lines 27-29), appropriately uses any one of the following four techniques of:

a first technique, by which when there no channel information in the memory, the frequency is shifted to search for a desired physical channel to thereby select a channel contained in a detected physical channel and also store information of the channel in the channel map (column 7, lines 23-27 and 34-38).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the automatic channel mapping taught by Eyer to the device disclosed by Sugiyama. The motivation would have an up to date channel map (Eyer: column 7, lines (column 7, lines 31-32).

Claims 2 and 3 are rejected on the same grounds as claim 1.

Referring to claim 5, Sugiyama discloses a digital/analog broadcasting receiver equipped with the channel selection device according to claim 1, for receiving a digital broadcast according to the ATSC (Advanced Television Systems Committee) standard (column 2, lines 8-10).

Sugiyama does not disclose an analog broadcast according to the NTSC (National Television Systems Committee) standard.

Eyer discloses in an analogous art an analog broadcast according to the NTSC (National Television Systems Committee) standard (column 4, lines 52-53).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the NTSC standard taught by Eyer, with the device disclosed by Sugiyama. The motivation would have been to use standards so that off the shelf decoders could be used.

Claims 4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama in view of Shintani.

Referring to claim 4, Sugiyama discloses a channel selection device used in a digital/analog broadcasting receiver comprising: a receiver for receiving an encoded

digital/analog broadcasting signal originated from a broadcasting station (figure 4, part 402; column 1, lines 48-52); a digital/analog decoder for decoding the digital/analog broadcasting signal received from the receiver (figure 4, parts 413 and 414) and then outputting the signal to a display (figure 4, part 418); a control unit for controlling the sections of the receiver such that, upon reception of the channel selection instruction from the input device, the receiver receives the broadcasting signal of a selected channel (figure 12); and an input device for inputting a user's instruction for channel selection to the control unit (figure 6; figure 4, parts 412 and 422); wherein the receiver receives the digital broadcast and an analog broadcast which are originated through different physical channels (figure 1), the digital broadcasting signal having, in one main channel, one or a plurality of sub-channels for originating contents there through and also having a VCT (Virtual Channel Table) (column 2, lines 25-26) containing virtual channel information providing the sub-channels with a correlation with an analog broadcasting physical channel (figure 1).

Sugiyama does not disclose a device with a memory for storing, as a channel map, channel information contained in the broadcasting signal decoded by the digital decoder; and the control unit, when trying to select a channel based on a channel upward/downward changing instruction sent from the input device, selectively uses the channel information obtaining and channel selecting techniques corresponding to the contents of the channel map of the channel upward/downward changing destination held in the memory and also stores the channel information in the channel map.

Shintani discloses in an analogous art a device with a memory for storing, as a channel map, channel information contained in the broadcasting signal decoded by the digital decoder (figure 1, part 33); and the control unit, when trying to select a channel based on a channel upward/downward changing instruction sent from the input device (column 11, lines 36-37), selectively uses the channel information obtaining and channel selecting techniques corresponding to the contents of the channel map of the channel upward/downward changing destination held in the memory and also stores the channel information in the channel map (column 11, lines 55-60).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the channel changing method taught by Shintani to the device disclosed by Sugiyama. The motivation would have been to allow the user to change channels without needing prior knowledge of the channel maps.

Referring to claim 6, Sugiyama discloses a channel selection device used in a digital/analog broadcasting receiver comprising: a receiver for receiving an encoded digital/analog broadcasting signal originated from a broadcasting station (figure 4, part 402; column 1, lines 48-52); a digital/analog decoder for decoding the digital/analog broadcasting signal received from the receiver (figure 4, parts 413 and 414) and then outputting the signal to a display (figure 4, part 418); a control unit for controlling the sections of the receiver such that, upon reception of the channel selection instruction from the input device, the receiver receives the broadcasting signal of a selected channel (figure 12); and an input device for inputting a user's instruction for channel

selection to the control unit (figure 6; figure 4, parts 412 and 422); wherein the receiver receives the digital broadcast and an analog broadcast which are originated through different physical channels (figure 1), the digital broadcasting signal having, in one main channel, one or a plurality of sub-channels for originating contents there through and also having a VCT (Virtual Channel Table) (column 2, lines 25-26) containing virtual channel information providing the sub-channels with a correlation with an analog broadcasting physical channel (figure 1); wherein a main channel is to be changed and there is the channel data of a main channel to which the current main channel is to be changed and the sub-channel, the channel data is referenced to change the main channel and the sub- channel, thus selecting the channel (figure 12).

Sugiyama does not disclose a device with a memory for storing, as a channel map, channel information contained in the broadcasting signal decoded by the digital decoder; and the control unit, when trying to select a channel based on a channel upward/downward changing instruction sent from the input device, selects a desired channel by selectively using any one of the following first through fourth procedures corresponding to the channel changing contents and how the data table containing the VCT is held in the memory.

Shintani discloses in an analogous art a device with a memory for storing, as a channel map, channel information contained in the broadcasting signal decoded by the digital decoder (figure 1, part 33); and the control unit, when trying to select a channel based on a channel upward/downward changing instruction sent from the input device (column 11, lines 36-37), selects a desired channel by selectively using any one of the



following first through fourth procedures corresponding to the channel changing contents and how the data table containing the VCT is held in the memory (column 11, lines 55-60).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the channel changing method taught by Shintani to the device disclosed by Sugiyama. The motivation would have been to allow the user to change channels without needing prior knowledge of the channel maps.

Referring to claim 7, Sugiyama discloses a channel selection device used in a digital/analog broadcasting receiver comprising: a receiver for receiving an encoded digital/analog broadcasting signal originated from a broadcasting station (figure 4, part 402; column 1, lines 48-52); a digital/analog decoder for decoding the digital/analog broadcasting signal received from the receiver (figure 4, parts 413 and 414) and then outputting the signal to a display (figure 4, part 418); a control unit for controlling the sections of the receiver such that, upon reception of the channel selection instruction from the input device, the receiver receives the broadcasting signal of a selected channel (figure 12); and an input device for inputting a user's instruction for channel selection to the control unit (figure 6; figure 4, parts 412 and 422); wherein the receiver receives the digital broadcast and an analog broadcast which are originated through different physical channels (figure 1), the digital broadcasting signal having, in one main channel, one or a plurality of sub-channels for originating contents there through and also having a VCT (Virtual Channel Table) (column 2, lines 25-26) containing virtual

channel information providing the sub-channels with a correlation with an analog broadcasting physical channel (figure 1); and wherein referring to the channel data to change each of the channels when there is the channel data of the main channel and the sub- channel (figure 12).

Sugiyama does not disclose a device wherein the control unit, when trying to select a channel based on a channel upward/downward changing instruction sent from the input device.

Shintani discloses in an analogous art a device wherein the control unit, when trying to select a channel based on a channel upward/downward changing instruction sent from the input device (column 11, lines 36-37).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the channel changing method taught by Shintani to the device disclosed by Sugiyama. The motivation would have been to allow the user to change channels without needing prior knowledge of the channel maps.

Referring to claim 8, Sugiyama discloses a digital/analog broadcasting receiver equipped with the channel selection device according to claim 1, for receiving a digital broadcast according to the ATSC (Advanced Television Systems Committee) standard (column 2, lines 8-10).

Sugiyama does not disclose an analog broadcast according to the NTSC (National Television Systems Committee) standard.

Shintani discloses in an analogous art an analog broadcast according to the NTSC (National Television Systems Committee) standard (column 8, lines 8-9).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the NTSC standard taught by Shintani, with the device disclosed by Sugiyama. The motivation would have been to use standards so that off the shelf decoders could be used.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin E. Shepard whose telephone number is (571) 272-5967. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Art Unit: 2623

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JS

A handwritten signature in black ink, appearing to read 'Christopher Grant', is positioned above the printed name.

**CHRISTOPHER GRANT  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600**